

In claim 9, line 14, delete "provide" and insert therefor -- for providing --.

In claim 10, line 1, delete "overlay control circuitry" and insert therefor -- controller --.

In claim 11, line 1, delete "overlay control circuitry" and insert therefor -- controller --.

1312. (Twice Amended) A controller comprising:  
circuitry for writing selectively each word of received data into a selected one of on-screen and off-screen memory spaces of a frame buffer;

a first port for receiving video and graphics data, a word of said data received with an address of said memory spaces directing said word to be processed as a word of video data or a word of graphics data;

a second port for receiving real-time video data;

circuitry for generating an address associated with a selected one of said memory spaces for a word of said real-time video data;

[circuitry for writing selectively each word of data into a selected one of on-screen and off-screen memory spaces of a frame buffer;]

circuitry for selectively retrieving said words of data from said on-screen and off-screen memory spaces as data is rastered for driving a display;

a graphics backend pipeline for processing ones of said words of data representing graphics data retrieved from said frame buffer;

a video backend pipeline for processing other ones of said words of data representing video data retrieved from said frame buffer, said circuitry for retrieving always rastering a stream [words] of data from said frame buffer to said graphics backend pipeline and rastering video data to said video backend pipeline when a display raster scan reaches a display position of a window; and

output selector circuitry for selecting for output between words of data output from said graphics backend pipeline and words of data output from said video backend pipeline.

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14. (Amended) The controller of Claim [13] <sup>13</sup> ~~12~~ wherein said output selector is operable to:

in a first mode, pass only a word of data output from said graphics pipeline;

in a second mode, pass a word of data output from said video pipeline when said display raster scan has reached a display position corresponding to a window and a word of data from said graphics pipeline [otherwise] when said display raster scan is in any other display position;

B<sup>2</sup> in a third mode, pass a word of data output from said video pipeline when said display raster scan has reached a display position corresponding to a window and a corresponding word of data from said graphics pipeline matches a color key and a word of data from said graphics pipeline [otherwise] when said display raster scan is in any other display position; and

in a fourth mode, pass a word of data from said video pipeline when said [a] corresponding word of data from said graphics pipeline matches a color key and a word of data from said graphics pipeline [otherwise] when said display raster scan is in any other display position.

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17. (Amended) The controller of claim <sup>13</sup> ~~12~~ wherein said output selector circuitry comprises:

a control selector having a plurality of [data] control inputs coupled to a register, said register storing a plurality of overlay control bits;

B<sup>3</sup> window position control circuitry coupled to a first control input of said control selector, said window position control circuitry operable to selectively provide a first control signal to said first control input when a word of data being pipelined through said video pipeline falls within a display window;

color comparison circuitry operable to compare a word of data being pipelined through said graphics pipeline with a color key and provide in response a second control signal to a second control input of said control selector; and

wherein said control selector is operable to provide an output selection control signal [to said control input of said output selector] in response to at least

one of said first and second control signals and said overlay control bits being stored in said register.

<sup>19</sup>~~18~~ 18. (Amended) The circuitry of claim <sup>18</sup>~~17~~ wherein said output selector circuitry further includes a third control input coupled to certain bits [a second output] of said graphics pipeline, said output selector further operable to select between data [pipeline] on said respective video and graphics pipelines in response to said certain bits [ a bit] presented [at a second control input] to said [output] selector circuitry.

Claim 30, line 7, after the word "from" delete "said" therefrom.

<sup>12</sup>~~35~~ 35. (Amended) The [system] controller of claim 1 wherein said [port comprises] interface includes a dual-aperture port.